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HARVESTING WILD RICE IN NORTHERN SASKATCHEWAN

I. INTRODUCTION

Harvesting wild rice is one of the most critical aspects of wild rice production for a number of reasons.

First, the crop is grown on water and requires new concept of farming, specifically harvesting, unlike all other grain crops.

Second; again, unlike other grain crops, wild rice varieties currently commercially grown in Saskatchewan, matures in stages and harvesting which is already a difficult process, needs to be regularly repeated to as many as 10 - 12 times.

Third, the timing or regularity of harvesting is extremely critical, because, the crop by its very nature, is highly shattering. If harvesting is not done on time, the harvestable grains will have been most likely fallen and lost.

Growers therefore need to realize that because of the uniqueness of the crop, some harvesting techniques and skills have to be employed to be able to pick-up most of the rice.

The foregoing tips might help the grower and the harvester operator to increase harvesting efficiency.

II. WHEN TO START HARVESTING

1. Growers should get ready for harvest and should check the rice fields at least three weeks after full flowering.
2. When the male flowers (the blossoms below the panicle or seed head) has almost fallen off, the field is ready for harvest.
3. The final check that growers should do before running the harvester over the field is to paddle a canoe through the rice fields. Check the grains on the top most part of the

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panicle. If it is firm (hard) and falls upon slightly shaking the stem, it is already mature. Harvest should be definitely started immediately.

III. WHEN TO REPEAT HARVESTING

When the first harvesting is successfully done, it must now be repeated regularly. Successful Saskatchewan growers, harvest their fields every two to three days depending on weather conditions.

1. If the weather is continuously extremely hot, repeat the harvesting operation on the second day.
2. If the weather is generally sunny and hot, repeat the harvesting on the third day.
3. If the weather is cloudy or raining, repeat the harvesting at least on the fourth day. Do not harvest when it is raining as their is a tendency for the immature seeds to be soaked and heavier and therefore falls off when hit by the harvesting bucket.
4. Some growers harvest as many as 10-12 times during the course of the season.

IV. HARVESTER OPERATION

1. Speed of Harvester

1.1 Average recommended harvesting speed is 10 miles per hour.

1.2 If the harvester is running much faster than 10 miles per hour, immature grains are being knocked-off the panicle. These are the "milky" grains that float when you throw them on the water.

Faster harvesting speed also results in some grains being broken. When any of these "indicators" are found, the operator should immediately adjust his speed.

1.3 If harvester is running slow, the upper part of the rice stems are not totally flapped towards the far end of the harvester bucket such that some mature grains may not drop right on the bucket and are therefore lost. This is hard to notice, and operator is advised to watch very closely. A good indication would be to run trials and determine what speed is harvesting more with less damage on grains and on plants.

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2. Harvesting Technique

2.1 The harvester operator does not have a definite line of travel because he is on water. But efforts must be done to ensure that the plants are hit no more than once during the operation and that no plants are missed. This is best achieved by having a skilled and experienced operator.

2.2 Without a definite line of travel, the operator can be efficient in harvesting by:

a) Organizing his harvesting operation. The recommended method is to start harvesting at one end and harvest back and forth across the patch. This will allow the operator to see quite clearly the difference between the recently harvested section, because the plants that have been harvested are still wet having been run under by the boat.

b) Observing the difference between the color of mature grains and the immature ones. The mature grains, which are yet to be harvested are darker in color; blackish or bluish. The immature grains look lighter.

3. Unloading of Rice From Harvester Bucket

3.1 When the bucket is full (about two bags depending on size of the bucket), it should be unloaded immediately. It will minimize the danger of tipping the boat.

3.2 Harvesting operation for a good size rice field (100 acres and above) would require a crew of two, one to operate the harvester and the other to operate the boat (or canoe) where rice is being unloaded.

3.3 The recommended procedure in unloading are as follows:

a) The canoe or boat where rice is to be unloaded is anchored in an open area as close as possible to sections where harvesting is taking place.

b) The harvester operator drives slowly and closely to the boat and shuts the engine off.

c) The crew in the boat grabs the table and puts it in a desired position for unloading.

d) The harvester table is then lowered to the level of the boat.

e) The crew in the boat ensures that the harvester and boat are held tight or secured before unloading is started.

f) After unloading, the harvester is released to start harvesting again.

V. CARE OF RICE

1. It is important that the operator is aware as to how the harvested crop will be used. This is necessary, in order to provide the kind of care that is needed for the newly harvested crop.
2. Before unloading and bagging newly harvested rice, leaves and other debris should be removed.
3. If the rice will be used for seeds, it should be tied tightly, weighed dry and then sunk in the lake where it can be easily recovered. It is good to tie the bags together to avoid the possibility of drifting all over the lake.
4. It is advisable to sink rice in a section of the lake that is protected or sheltered and that has muddy bottoms. Rocky or sandy bottoms are not recommended.
5. If rice is going to be sold for processing, it should be delivered to the weighing station as soon as possible.
6. If it is not possible to deliver the harvested, bagged rice immediately to the weighing station, it is important to watch for heating of the rice.
7. Rice subjected to long and continuous heating will spoil rapidly.
8. If any sign of heating is noticed or felt (you can tell this by sticking your hand down in the middle of the bag), the bags should be opened, and made to stand in the shade and pour water every day, until it is time to bring them to the weighing station.

NOTE: For more information on harvesting and wild rice production in general, please refer to the Saskatchewan Department of Agriculture brochure on "Wild Rice Production in Saskatchewan".